

REMARKS

Initially, Applicant would like to express his appreciation to Examiner Phan for the courtesies extended to Applicant's attorney during a telephone interview on February 25, 2004. During the interview, Examiner Phan agreed with Applicant's attorney that the inclusion of a limitation in the independent claims directed to the alternating arrangement of the optical filters would overcome the Sakamoto reference. Applicant has endeavored to amend the claims consistent with the points discussed with the Examiner.

After the foregoing amendment, claims 1-9, 12-16, 18, and 21-31 are pending in the application. Applicant respectfully requests additional consideration and review of the claims in view of the foregoing amendment and the following remarks.

Changes to the Specification

Applicant proposes to amend the specification to correct the reference number for output port of the L-band filter located in repeater node 16.

Claim Rejections Under 35 U.S.C. §102 (e)

The Examiner has rejected claims 1, 2, 12-13, 21, and 23-30 under 35 U.S.C. § 102(e) as being anticipated by various references. Applicant has responded by amending the claims.

As stated in the prior amendment, an important aspect of Applicant's invention is the use of an optical filter that is transmissive to signals traveling in a first direction to one transport path and reflective to signals traveling in an opposite direction to a separate transport path, as indicated, for example, at page 4, line 6 through page 5, line 10 in Applicant's specification. In addition, optical filters corresponding to particular optical transmission bands are placed in an alternating arrangement. This technique provides signal separation and much lower insertion loss than other techniques.

Claim 1 points out this important aspect of the invention at, for example, lines 25-26 that states "*wherein said first optical filter and said second optical*

filter are in an alternating arrangement." Similar recitations further appear in claim 12 at lines 27-29, as well as in claim 21, lines 26-28, claim 23, lines 8-11, and claim 28, lines 11-12.

Claim Rejections Under Sakamoto

Claims 1, 2, 12-13, 21, 23, and 25-29 were rejected under 35 U.S.C. §102(e) as being anticipated by Sakamoto et al (U.S. 6,490,064). Sakamoto provides a bi-directional system with two oppositely directed signals converging on an optical filter, as shown in Sakamoto's Figures 16 and 18, and mentioned in column 13, lines 16-39 and column 13, lines 58-64 of Sakamoto's specification. However, Sakamoto does not teach Applicant's claim 1 limitation calling for "wherein said first optical filter and said second optical filter are in an alternating arrangement". Similar recitations appear in Applicant's independent claims 12, 21, 23, and 28. Sakamoto makes no mention of filters in an alternating arrangement and it cannot be assumed from the patent that it exists. Therefore, Sakamoto cannot be said to anticipate the above-noted recitations in claims 1, 2, 12-13, 21, 23, and 25-29.

In view of the foregoing, Applicant respectfully requests that the rejection of claims 1, 2, 12-13, 21, 23, and 25-29 under 35 USC §102(e) be withdrawn.

Claim Rejections Under Islam

Claims 23-30 were rejected under 35 U.S.C. § 102(e) as being anticipated by Islam (U.S. 6,631,028 B1). Islam provides broadband amplifiers and communication systems for S-band, C-band, and L-band optical signals. However, Islam does not teach Applicant's independent claim 23 limitation calling for "wherein said means for filtering is adapted to be coupled in an alternating arrangement to a second means for filtering, said second means for filtering being substantially transmissive to said signals in said second signal band and substantially reflective to said signals in said first signal band". Nor does Islam teach Applicant's independent claim 28's limitation calling for "wherein said optical filter is adapted to be coupled in an alternating arrangement to a second

optical filter, said second optical filter allows said signals in said second signal band to flow onto said transport medium and reflects said signals in said first signal band". Islam makes no mention of filters in an alternating arrangement and it cannot be assumed from the patent that it exists. Therefore, Islam cannot be said to anticipate the above-noted recitations in claims 23-30.

In view of the foregoing, Applicant respectfully requests that the rejection of claims 23-30 under 35 USC §102(e) be withdrawn.

Claim Rejections Under 35 U.S.C. §103 (a)

The Examiner has rejected claims 3-9, 14-18, 22, 24 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Sakamoto et al. (U.S. 6,490,064) in view of various other references. Applicant has responded by canceling claim 17 and amending the independent claims from which the remaining claims depend.

Claim Rejections Under Sakamoto and Kakui

Claims 3, 18, 22, 24 and 30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sakamoto et al. (U.S. 6,490,064) in view of Kakui (U.S. 6,549,315). Sakamoto does not teach or suggest the limitations recited in Applicant's independent claims 1, 12, 21, 23, and 28 for the above-mentioned reasons. Kakui does not cure the deficiencies noted above for Sakamoto. Since claim 3 depends from claim 1, claim 18 depends from claim 12, claim 22 depends from claim 21, claim 24 depends from claim 23, and claim 30 depends from claim 28, these dependent claims are therefore also believed to be allowable for the same reasons set forth above for the respective independent claims. Therefore, the combination of Sakamoto and Kakui still does not embody Applicant's claims 3, 18, 22, 24 and 30.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the § 103(a) rejection of claims 3, 18, 22, 24 and 30.

Claim Rejections Under Sakamoto and Alexander

Claims 4-7, 14 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sakamoto et al. (U.S. 6,490,064) in view of Alexander et al. (U.S. 6,233,077). Sakamoto does not teach or suggest the limitations recited in Applicant's independent claims 1, 12, 21, 23, and 28 for the above-mentioned reasons. Alexander does not cure the deficiencies noted above for Sakamoto. Since claims 4-7 depend from claim 1 and claims 14-15 depends from claim 12, these dependent claims are therefore also believed to be allowable for the same reasons set forth above for the respective independent claims. Therefore, the combination of Sakamoto and Alexander still does not embody Applicant's claims 4-7, 14 and 15.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the § 103(a) rejection of claims 4-7, 14 and 15.

Claim Rejections Under Sakamoto and Alexander

Claims 8, 9, 16 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sakamoto et al. (U.S. 6,490,064) in view of Alexander et al. (U.S. 6,281,997). Claim 17 has been canceled. Sakamoto does not teach or suggest the limitations recited in Applicant's independent claims 1, 12, 21, 23, and 28 for the above-mentioned reasons. Alexander does not cure the deficiencies noted above for Sakamoto. Since claims 8 and 9 depend from claim 1, and claim 16 depends from claim 12, dependent claims 8, 9 and 16 are therefore also believed to be allowable for the same reasons set forth above for the respective independent claims. Therefore, the combination of Sakamoto and Alexander still does not embody Applicant's claims 8, 9 and 16.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the § 103(a) rejection of claims 8, 9, 16 and 17.

New Claims

New claim 31 has been added. Claim 31 replaces canceled claim 17, and includes limitations directed towards further defining the transmission band insertion loss range.

Conclusion

In view of the foregoing amendments and remarks, Applicant submits that claims 1-9, 12-16, 18, and 21-31 are in condition for allowance, and reconsideration is therefore respectfully requested. If there are any outstanding issues that the Examiner feels may be resolved by way of a telephone conference, the Examiner is invited to contact the undersigned to resolve the issues.

Respectfully submitted,

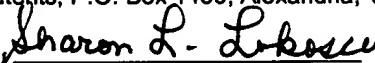
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Atts.

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 Date 3/26/04
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